



City of Cambridge Water Department Comprehensive Hazardous Materials Emergency Response Plan Update



October 2006

Comprehensive Hazardous Materials Emergency Response Plan Update

The following is a summary of Cambridge Water Department preparations for an emergency in the watershed resulting in the introduction of hazardous materials to the water supply pursuant to the City of Cambridge Hazardous Materials Emergency Response Plan (April 3, 2000).

Emergency Access

Since the last update issued in the spring of 2005, two emergency access ramps have been installed at both the Hobbs Brook and Stony Brook Reservoirs in close proximity to the gatehouses on each reservoir. These access ramps can accommodate a boat trailer, greatly enhancing equipment deployment capabilities for fire department response teams. With the gravel access at Fresh Pond Reservoir near the historic intake structure, all three reservoirs are now trailer-accessible.

Planning Documentation

In addition to the physical work being carried out in the field, a new *Hazardous Materials Emergency Response Atlas for Route 128 and Route 2* has been completed that is more readable and user-friendly than the original document, and has updated highway drainage infrastructure information. This atlas can also be reproduced easily in-house, thus copies can be readily replaced at a low cost if needed. The atlas was developed using Geographic Information System (GIS) software with input from the Waltham Fire Department (WFD) and copies were delivered to them in September, 2006.

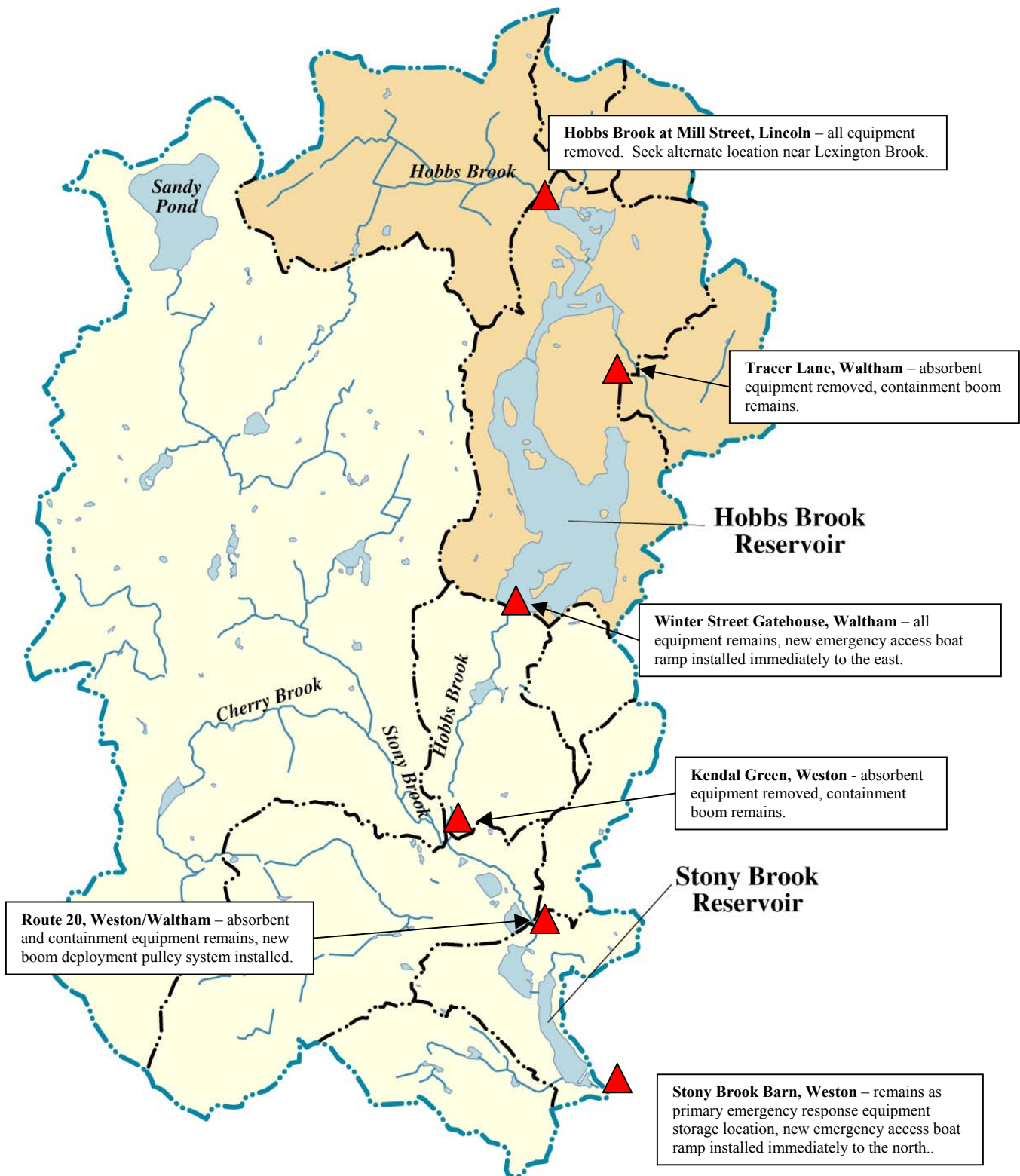
Equipment Preparations

Over the past two years evaluations of equipment storage locations have resulted in removing select equipment from several of the more remote sites. These locations are more difficult to reach thus there is a relatively low probability of accessing them in an emergency. Further evaluation to keep equipment at other, more readily accessible locations in their vicinity may be warranted.

Other existing watershed facilities continue to be used for emergency response equipment storage; the Stony Brook Reservoir Barn in Weston is the primary stockpile location for response equipment, with the Winter Street and Trapelo Road Gatehouses as secondary storage locations should a release occur in their proximity. Outreach efforts to the WFD have included the purchasing of a new boat and trailer for their response teams, and additional training that will occur late in October, 2006.

Site-specific efforts with general equipment inventories are discussed below.

Overview Map of all emergency response equipment storage locations, and updates since last report.



Stony Brook Barn, Weston – HazMat Emergency Response Equipment Storage Location:

The Stony Brook Barn (One Gatehouse Lane) is the southern-most facility in the watershed located on the Weston/Waltham line. In it is the largest single stockpile of emergency response equipment. The WFD has direct access to this facility. A minimal amount of equipment has been utilized since the last update. Existing equipment, including changes (in bold) at this location includes the following:

- **One 100-foot containment boom** – relocated to the WFD boat trailer. It was decided by CWD and WFD that the new trailer can adequately store the boom and the boat, thus affording the most practical access to this heavy piece of equipment.
- 14 bags of oil only mats, 200/bag
- **One pallet of EZ-Sorb granular cellulose** – 40-lb bags are now reduced to 23 bags
- One box oil-only ‘envirobond’ sponge boom (four of 2”x10’)
- Two bundles of Uni-sponge mat - yellow
- Five bundles of 5”x10’ Sock Net Booms, 4/Bundle
- Four rolls of 20’x25’ 4 mill. plastic sheeting
- Two packs of duct tape
- Two salvage drums
- Six 5-gal buckets
- Shovels – 1 mulch, 2 snow
- One bolt cutter
- Three silt fences with stakes
- One box of empty sand bags
- Two 55 gallon barrels
- One 250mm PVC pipe
- Four 450mm PVC pipe
- **Two bunches of rope (appx. 20’-long each)** – needs replacement, no longer on-site

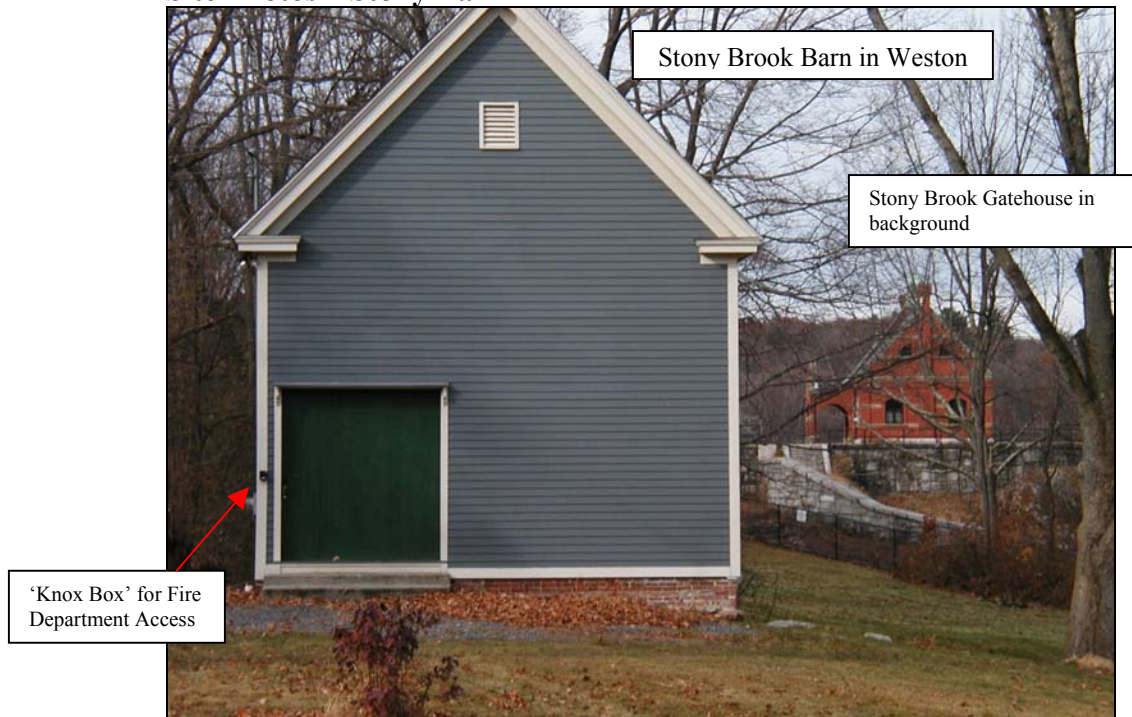
Location Map – Stony Barn



Photo of the newly installed gravel access ramp at Stony Brook Reservoir



Site Photos – Stony Barn



Site photos – Stony Barn cont.



Equipment storage area immediately inside main entrance of the barn.

Route 20, Waltham Gaging Station – HazMat Emergency Response Equipment Storage Location:

Route 20 is a very busy interchange at I-95 and it is also where the main branch of Stony Brook exits a large culvert several hundred yards upstream of the reservoir. Access to this station requires entering the railroad right-of-way, and Stony Brook is relatively wide and swift, therefore safety factors in addition to hazardous materials are an issue at this site. In consideration of these safety factors, a new pulley system was constructed at this location that greatly facilitates the deployment of a containment boom across the brook without having to enter the water. The pulley system is secured in-place and heavily anchored to the USGS gaging station foundation, which consists of a large concrete block.

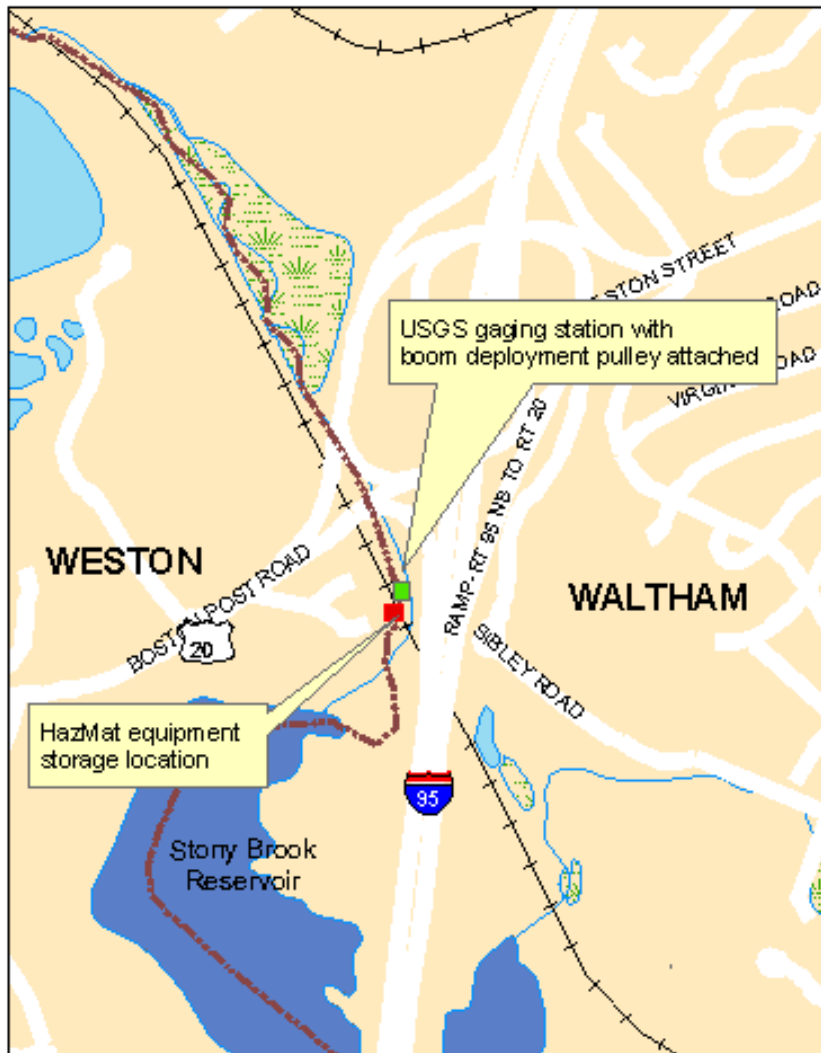
There are two structures at the site; the larger structure houses US Geological Survey monitoring equipment, and the smaller one just behind it, marked with the CWD logo, houses the emergency response equipment. Existing equipment at this location includes the following:

- One 50-foot Containment boom

One spill kit containing:

- Fifty blue absorbent pads
- One 8"x10' blue snake boom
- One 4"x10' white snake boom
- Twenty five all-purpose yellow absorbent pads
- Two pairs of gloves
- Two pairs of yellow boot covers
- Two 10-foot lengths of yellow polypropylene line

Location Map – Route 20



Site Photos – Route 20



Location of storage shed directly adjacent to the US Geological Survey gaging station



50-foot containment boom and bin containing absorbent equipment inside station. Location map and notification instructions posted to door.



Boom deployment pulley system.

Winter Street Gate House, Waltham – HazMat Emergency Response Equipment Storage Location:

The Winter Street Gatehouse serves as the outlet from Hobbs Brook Reservoir. A large spill that has reached this point can be partially contained in Hobbs Brook Reservoir by closing the gate and stopping flow out of this reservoir until the released material is removed from the water. Seepage, however prevents full cessation of flow at the gatehouse, thus secondary containment measures, such as a boom, may be necessary to prevent a spill from entering Hobbs Brook via the gatehouse structure. A newly installed boat ramp in immediate proximity to the gatehouse will greatly facilitate the deployment of secondary containment measures at this location, and any location along Route 128 as it passes close to the reservoir shoreline.

In addition, there is a stockpile of equipment inside this gatehouse that can be easily accessed and carried to a spill elsewhere if necessary. Existing equipment at this location includes the following:

- One 100-foot containment boom in wooden carry box
- One 50-foot containment boom
- 200-feet of nylon rope in 50-foot sections
- Ten bags of speedi dri
- Ten bags of paper speedi dri
- Two catch basin covers
- One fire extinguisher
- One type IV Personal Floatation Device throwable ring buoy with 100-feet of rope

Bin 1:

- Three 8"x10' absorbent booms

Bin 2:

- Three 8"x10' absorbent booms

Bin 3:

- Two 8"x10' absorbent booms

Bin 4:

- Three 4"x10' absorbent booms
- One 3"x10' absorbent boom

- One bag of blue oil-only absorbent pads

One spill kit containing:

- One bag of blue oil-only absorbent pads
- One bag of *all purpose* yellow absorbent pads
- Length of nylon rope (25-feet)
- One 4 lb sledge hammer
- Two lengths of 2-foot long rebar

Location Map – Winter Street Gatehouse

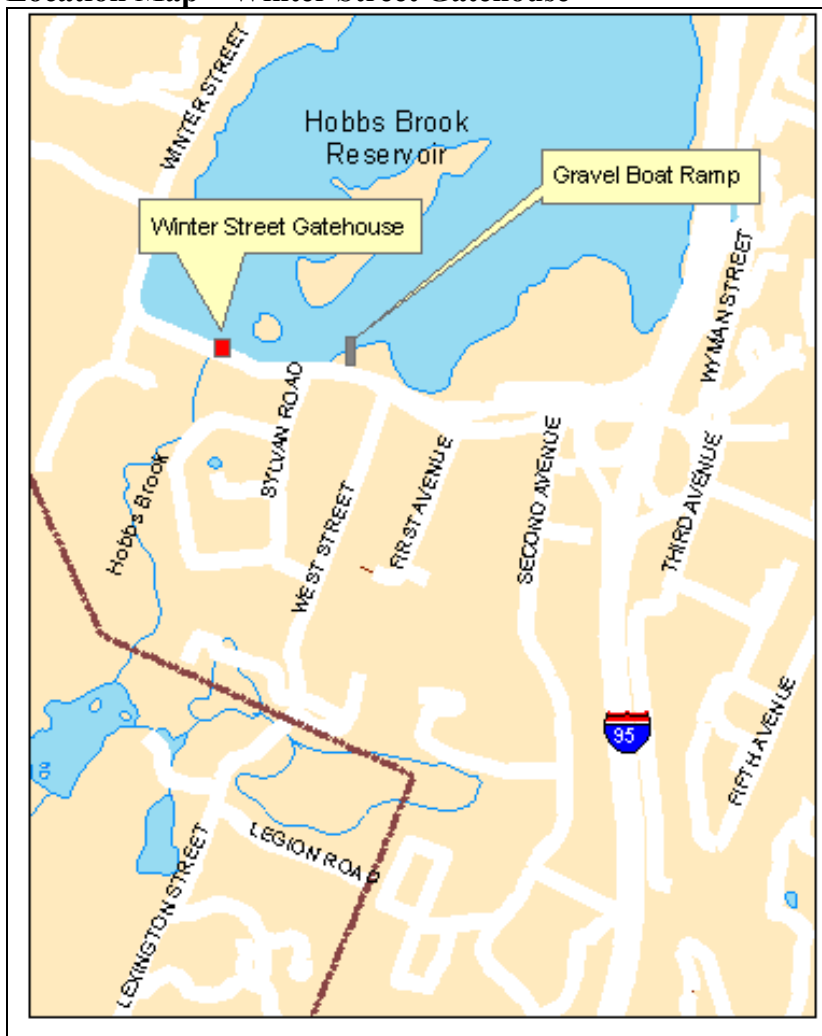


Photo of newly installed gravel boat ramp for Hobbs Brook Reservoir at Winter Street



Winter Street Gatehouse



Winter Street Gatehouse equipment storage area



Tracer Lane – HazMat Emergency Response Equipment Storage Location:

The Tracer Lane HazMat equipment storage area is accessed through the northeastern corner of the Reservoir Place parking lot, but more importantly, serves as a quick access point for equipment pick-up for a response to a spill on the southbound travel lanes of route I-95. If necessary, responding personnel can pull over on the highway shoulder to access this station.

Equipment at this location includes the following:

- One 25-foot long containment boom.

Location Map – Tracer Lane



Site Photos – Tracer Lane



Trapelo Road Gatehouse – HazMat Emergency Response Equipment Storage

Location:

The Trapelo Road Gatehouse is located on the causeway of Trapelo Road that bisects the middle and lower basins of the Hobbs Brook Reservoir. The gates within the gatehouse are currently not functioning thus any spill in direct proximity of the gatehouse would require the use of equipment within it. This gatehouse affords easy access to equipment from Trapelo Road, although the road is narrow over the causeway. Thus, prolonged stops at this location are undesirable. The equipment within this gatehouse is as follows:

- One 50-foot containment boom
- One 25-foot containment boom (moved from previous Mill Street storage location)
- Two catch basin covers

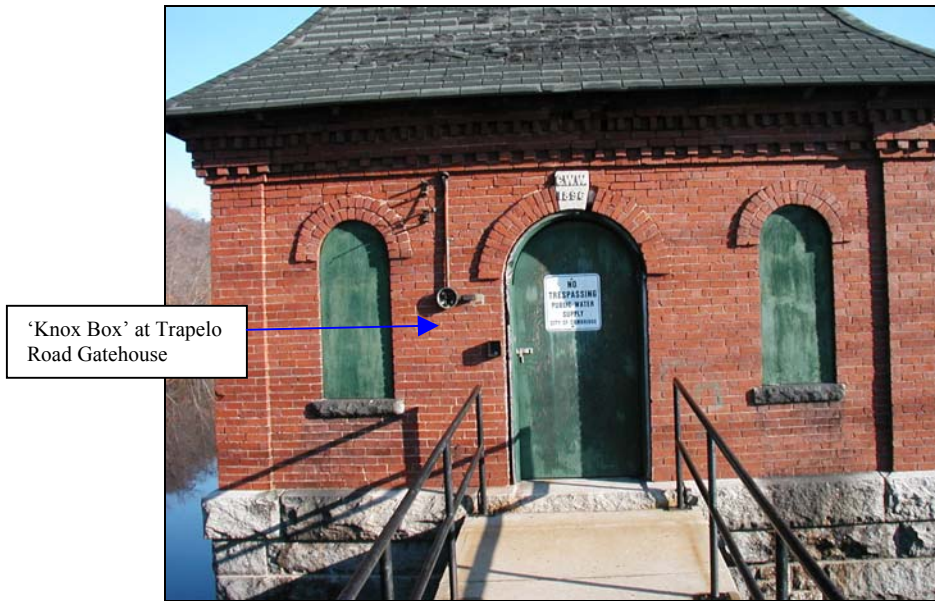
Distributed among the 4 bins in gatehouse:

- Sixteen 5’x10’ absorbent booms
- Two bags (200 pads each) of absorbent pads
- Four bags of speedi dri
- One bag of “unisponge” mats (qty 48)

Location Map – Trapelo Road Gatehouse



Site Photos – Trapelo Road Gatehouse



Storage location inside Trapelo Road Gatehouse



Hobbs Brook at Kendal Green

This is a remote station that is close to the confluence of Hobbs Brook and Stony Brook in Weston. Access to this location is from Hobbs Brook Road off of Route 117. All absorbent equipment was removed from this site due to ant and rodent infestation, threatening the integrity of the equipment. The housing at this location contains only the following:

- Twenty-five foot containment boom

Hobbs Brook at Mill Street

All equipment has been removed from this location due to rodent damage/infestation. Equipment from this station was relocated to the Trapelo Road gatehouse.

Mobile Response Kit Preparations

In addition to the station locations, several emergency response kits have been assembled for transport. These kits provide backup or initial containment measures and can fit easily into a city vehicle. Descriptions of the kits are below.

Spill Kit for the Fresh Pond, Cambridge Grounds Crew

This kit is kept in the garage storage area where the landscape maintenance equipment is stored at the Fresh Pond Treatment Facility. Its intended use is for small accidental spills in and around the equipment area.

Contents:

- One 3"x10' blue snake boom
- One 4"x10' white snake boom
- Fifty blue absorbent pads
- Twenty five all-purpose yellow absorbent pads
- Two pairs of gloves – 1 green pair, 1 black heavy-duty pair
- Two pairs of yellow boot covers
- Two 10-foot lengths of yellow polypropylene line

Spill Kit for Watershed Truck # 31 which also carries a catch basin cover

This spill kit is kept in the truck and can be used either for an initial response to a small release of material or as backup if necessary.

Contents:

- One 3"x10' blue snake boom
- One 4"x10' white snake boom

- Fifty blue absorbent pads
- Twenty five all-purpose yellow absorbent pads
- Two pairs of gloves – 1 green pair, 1 black heavy-duty pair
- Two pairs of yellow boot covers
- Two 10-foot lengths of yellow polypropylene line
- One Catch Basin Cover

Spill Kit for Watershed Truck # 10

This spill kit is kept in the truck and can be used either for an initial response to a small release of material or as backup if necessary.

Contents:

- One 3"x10' blue snake boom
- One 4"x10' white snake boom
- Fifty blue absorbent pads
- Twenty five all-purpose yellow absorbent pads
- Two pairs of gloves – 1 green pair, 1 black heavy-duty pair
- Two pairs of yellow boot covers
- Two 10-foot lengths of yellow polypropylene line
- One catch basin cover

Training accomplished

- No formal training since last update

Summary of items completed since last update

- GIS emergency response Highway Atlas to replace existing document.
- Installed a boom deployment pulley system at Stony Brook at Route 20.
- Established emergency access locations at:
 - Stony Brook Reservoir
 - Hobbs Brook Reservoir Winter Street

Action Items

- Consider storing a limited amount of emergency response equipment at the existing United States Geological Survey Gaging Station at Lexington Brook, as an alternate site to the former Hobbs Brook at Mill Street storage location.
- Complete knox-box installation at Trapelo Road Gatehouse.
- Install a complete, mobile spill kit for Truck #27.

- Access to Hobbs Brook Reservoir Middle Basin, Old County Road/Rte. 2 – some brush cutting/clearing and stone laying might be necessary. Need to establish access gate.
- Access to Hobbs Brook Reservoir Upper Basin, Route 2/Upper Hobbs Basin – some brush cutting/clearing might be necessary. Need to establish access gate.
- Evaluate and address seepage issues at the Winter Street Gatehouse.

Purchasing requirements:

- Evaluate the necessity to replace absorbent materials that have been used since the last update of the HazMat Plan.
- Improve mobile communications between Cambridge City staff and outside entities/emergency responders in the Watershed.
- Install 4 Pipe gates to clearly identify and secure emergency access locations
- Consider purchasing a balloon plug to block culvert(?)

Training Requirements:

- Review all newly established emergency boat ramp and access locations with WFD.
- Deliver the Cambridge Watershed *Hazardous Materials Emergency Response Atlas for Route 128 and Route 2* to the Weston, Lexington, and Lincoln Fire Departments.
- In-house site-specific boom deployment training scheduled for October 26th, 2006.
- Training with WFD and EPA with two key watershed staff members will occur from October 31st to November 2nd.

The CWD will continue to work closely with the WFD to facilitate effective responses to emergencies both within the Cambridge watershed and all of the City of Waltham.

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